This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for automatic handling of errors within a database engine, the method comprising the steps of:

   detecting an error while executing a query access plan, wherein the error is an execution error of a type that halts execution of the query access plan, and wherein the query access plan is of the type generated by a query optimizer;

   in response to detecting the error, automatically rebuilding the query access plan with the query optimizer to generate a new query access plan; and

   executing the new query access plan to generate at least a portion of a result set for storage or display.

2. (Canceled)

3. (Original) The method of claim 1, wherein the error is a function check.

4. (Original) The method of claim 1 further comprising the steps of:

   receiving another error while executing a function within the new query access plan;

   identifying a first implementation method of the function within the new query access plan; and

   rebuilding the new query access plan by replacing the first implementation method with a second implementation method of the function so as to generate a rebuilt query access plan.

5. (Original) The method according to claim 1, further comprising the step of:

   logging information about the error, and the new query access plan.

6. (Original) The method according to claim 1, further comprising the step of:
reporting the error.

7. (Currently Amended) A method for automatic handling of errors within a database engine, the method comprising the steps of:

receiving an error while executing a function within a query access plan, wherein the error is an execution error of a type that halts execution of the query access plan, and wherein the query access plan is of the type generated by a query optimizer;

identifying a first implementation method of the function within the query access plan;

rebuilding the query access plan with the query optimizer by replacing the first implementation method with a second implementation method of the function so as to generate a new query access plan; and

executing the new query access plan to generate at least a portion of a result set for storage or display.

8. (Original) The method of claim 7, wherein the function is one of a join function, an indexing function, a grouping function, and an ordering function.

9. (Canceled)

10. (Previously Presented) The method of claim 7, further comprising the steps of:

receiving another error while executing the function within the new query access plan; and

rebuilding the new query access plan by replacing the second implementation method with a third implementation method of the function.

11. (Original) The method according to claim 10 further comprising the step of:

    logging information about the error, the another error, and the new query access plan.

12. (Currently Amended) A method for automatic handling of errors within a database engine, the method comprising the steps of:

    executing a query access plan comprising a plurality of functions, each function including a first implementation method, and the query access plan of the type generated by a query optimizer;

    detecting a first error when executing a first function, wherein the first error is an execution error of a type that halts execution of the query access plan;

    rebuilding the query access plan with the query optimizer to generate a new query access plan;

    executing the new query access plan to generate at least a portion of a result set for storage or display;

    receiving a second error while executing the first function within the new query access plan; and

    rebuilding the new query access plan by replacing the first implementation method with a second implementation method of the function.

13. (Currently Amended) A program product, comprising:

    a program code configured upon execution to:

        detect an error while executing a query access plan, wherein the error is an execution error of a type that halts execution of the query access plan, and wherein the query access plan is of the type generated by a query optimizer;

        automatically rebuild the query access plan with the query optimizer to generate a new query access plan in response to detecting the error; and

        execute the new query access plan; and

    a physical, recordable signal bearing medium bearing the program code.

14. (Original) The program product of claim 13, wherein the program code is further configured to:

      receive an error while executing a function within the new query access plan;

      identify a first implementation method of the function within the new query access plan; and

      rebuild the new query access plan by replacing the first implementation method with a second implementation method of the function so as to generate a rebuilt query access plan.

15. (Currently Amended) A program product, comprising:

      program code configured upon execution thereof to:

        receive an error while executing a function within a query access plan, wherein the error is an execution error of a type that halts execution of the query access plan, and wherein the query access plan is of the type generated by a query optimizer;

        identify a first implementation method of the function within the query access plan;

        rebuild the query access plan with the query optimizer by replacing the first implementation method with a second implementation method of the function so as to generate a new query access plan; and

        execute the new query access plan; and

      a physical, recordable signal bearing medium bearing the program code.

16. (Currently Amended) An apparatus comprising:

      at least one processor;

      a memory coupled with the at least one processor; and

      a program code residing in memory and executed by the at least one processor, the program code configured to:

detect an error while executing a query access plan, wherein the error is an execution error of a type that halts execution of the query access plan, and wherein the query access plan is of the type generated by a query optimizer;

automatically rebuild the query access plan with the query optimizer to generate a new query access plan; and

execute the new query access plan.

17. (Canceled)

18. (Original) The apparatus of claim 16, wherein the error is a function check.

19. (Previously Presented) The apparatus of claim 16, wherein the program code is further configured to:

detect another error while executing a function within the new query access plan;

identify a first implementation method of the function within the new query access plan; and

rebuild the new query access plan by replacing the first implementation method with a second implementation method of the function so as to generate a rebuilt query access plan.

20. (Previously Presented) The apparatus according to claim 16, wherein the program code is further configured to:

log information about the error, and the new query access plan.

21. (Previously Presented) The apparatus according to claim 16, wherein the program code is further configured to:

report the error.